BS

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/821,847 | 03/29/2001 | Mikhail Verbitsky | IMC-30 | 3540 |

7590 10/07/2004

Toby H Kusmer
McDermott Will & Emery
28 State Street
Boston, MA 02109-1775

| EXAMINER | |
|---|---|
| WOZNIAK, JAMES S | |
| **ART UNIT** | **PAPER NUMBER** |
| 2655 | |

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/821,847 | VERBITSKY ET AL. | |
| | Examiner | Art Unit | |
| | James S. Wozniak | 2655 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

1. The drawings are acceptable for examination purposes, but are objected to because of excessive handmade corrections to numbers and text that clutter and confuse the drawings. Corrected drawings will be required if the application is allowed to avoid abandonment of the application.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 2, 3, and 16-19** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 2** recites the limitation "the total number of SAOs" in line 2. There is insufficient antecedent basis for this limitation in the claim.

**Claim 3** recites the limitation "the total number of AOs" in line 2. There is insufficient antecedent basis for this limitation in the claim.

**Claims 16 and 18** recite the limitation "*the number* of *the source patents*." There is insufficient antecedent basis for both "the number" and "the source patents" in the claims.

**Claims 17 and 19** recite the limitation "*the number of source patents*." There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1 and 6** are rejected under 35 U.S.C. 102(b) as being anticipated by Braden-Harder et al *(U.S. Patent: 5,933,822)*.

With respect to **Claim 1**, Braden-Harder discloses:

Acquiring a first set of documents in response to a user entered request, the request including criteria identifying a first entity *(output document set, Col. 7, Lines 35-46)*,

Processing at least a portion of each document of said first set of documents into an SAO Knowledge Base *(semantically processing retrieved documents, Col. 17, Line 5- Col. 18, Line 7, and Col. 7, Line 46- Col. 8, Line 6)*; and

Displaying at least a portion of the Ss or AOs in rank order of having the most to the least AOs or Ss, respectively, associated with the displayed Ss or AOs *(presenting ranked documents to a user, Col. 17, Line 58- Col. 18, Line 24)*.

With respect to **Claim 6**, Braden-Harder recites:

The criteria further include a characteristic of the entity's activity *(verb- has, Fig. 5, Element 530)*.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 2-5, 7, 16, and 17**are rejected under 35 U.S.C. 103(a) as being unpatentable over Braden-Harder et al in view of Rivette et al *(U.S. Patent: 6,339,767)*.

With respect to **Claim 2**, Braden-Harder discloses counting the number of semantic information occurrences in a particular document in determining a ranking score *(Col. 17, Line 58- Col. 8, Line 24)*. Braden-Harder does not specifically disclose an option of specifically displaying the number of semantic occurrences, however, it is well known in the art to list a number of hits per document in order to provide the user with a means of determining a most relevant document and further highlight all relevant terms as is evidenced by Rivette *(Col. 27, Lines 7-16, and Col. 28, Liens 45-50)*. Thus in order to provide a user with a means of determining a most relevant document and further highlight all relevant terms, it would have been obvious to one of ordinary skill in the art, at the time of invention, to combine the teachings of Braden-Harder and Rivette, which are from a similar field of endeavor in document search engines.

With respect to **Claim 3**, Braden-Harder recites the ability to calculate a ranking score based upon the frequency of occurrence of multiple types of subject-verb-object triple relations within a document *(Col. 17, Line 29- Col. 18, Line 24)*. Although Braden-Harder does not specifically suggest displaying the number of hits for each relation within a document, Rivette teaches the method of displaying a search term hit number for a particular document in order to provide a user with a means to determine document relevance, as applied to Claim 2 and obvious in combination with the teachings of Braden-Harder for the reasons noted above with respect to the claim 2 rejection.

With respect to **Claims 4 and 5**, Braden-Harder teaches a document search engine capable of producing an initial document list based on a search criteria and providing further semantic processing of that list, as applied to Claim 1. Braden-Harder does not specifically suggest that a search criteria includes a time period in which a common event occurred, wherein the common event includes the filing of a patent application or publication of a technical document, however Rivette discloses:

The Criteria further includes a time period within which occurred some common event, wherein the common event includes the filing of a patent application or publication of a technical document *(searchable patent information, which includes the filing date of an application, Col. 18, Line 56- Col. 19, Line 2, and issue date, Fig. 57)*.

Braden-Harder and Rivette are analogous art because they are from a similar field of endeavor in document search engines. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teaching of Braden-Harder with the ability to search patent documents according to a filing date as taught by Rivette to obtain and organize

patent information automatically (Col. 3, Lines 53-64) according to a filing date so that a user can determine whether a prior art document is effective when conducting a search.

With respect to **Claim 7**, Braden-Harder teaches a document search engine capable of producing an initial document list based on a search criteria that includes activity characteristics and providing further semantic processing of that list, as applied to Claim 6. Braden-Harder does not specifically suggest that the characteristic relates to a particular development, design, device, or process, however Rivette discloses:

Characteristic relates to a particular technical development, design, application, device, or process *(searchable patent information, which includes the invention title of an application, Col. 18, Line 56- Col. 19, Line 2).*

Braden-Harder and Rivette are analogous art because they are from a similar field of endeavor in document search engines. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teaching of Braden-Harder with the ability to search patent documents according to an invention title as taught by Rivette to obtain and organize patent information automatically (Col. 3, Lines 53-64) according to a invention title so that a user can search pertinent prior art based on the invention subject matter.

With respect to **Claim 16**, Rivette teaches the means of displaying a search term hit number for patent documents as applied to Claim 2.

**Claim 17** contains subject matter similar to Claims 2 and 3, and thus, is rejected for the same reasons.

8. **Claims 8, 9, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Braden-Harder et al in view of Vora et al *(U.S. Patent: 5,623,652)*.

With respect to **Claim 8**, Braden-Harder teaches a document search engine capable of producing an initial document list based on a search criteria and providing further semantic processing of that list, as applied to Claim 1. Braden-Harder does not specifically suggest the ability to simultaneously perform and display the document search method for two different searches, however, such a means for displaying two different searching is well known in the art as is evidenced by Vora *(Col. 11, Line 34- Col. 12, Line 20)*.

Braden-Harder and Vora are analogous art because they are from a similar field of endeavor in document search engines. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teaching of Braden-Harder with the ability to simultaneously perform and display two different document searches as taught by Vora in order to implement a more efficient document search method by allowing a user to execute further searches while a current search is ongoing and compare summarized search results *(Col. 3, Lines 7-21)*.

With respect to **Claim 9**, Braden-Harder recites the ability display ranked search results based upon multiple types of subject-verb-object triple relations within a document as applied to Claims 2 and 3, while Vora additionally shows separate result columns corresponding to two searches and contained in separate windows *(Fig. 5)*.

**Claim 14** contains subject matter similar to Claim 6, and thus, is rejected for the same reasons.

9. **Claims 10-13, 15, 18, and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Braden-Harder et al in view of Vora et al, and further in view of Rivette et al.

With respect to **Claim 10**, Braden Harder discloses counting the number of semantic information occurrences in a particular document in determining a ranking score, while Rivette teaches the method of displaying a search term hit number for a particular document in order to provide a user with a means to determine document relevance, as applied to Claim 2. Additionally, Vora teaches the ability to simultaneously perform and display two different document searches, as applied to Claim 8. Furthermore Braden-Harder, Vora, and Rivette are analogous art because they are from a similar field of endeavor in document search engines and obvious in combination with the teachings for the reasons noted above with respect to the claim 2 rejection.

**Claim 11** contains subject matter similar to Claims 3 and 10, and thus, is rejected for the same reasons.

With respect to **Claims 12 and 13**, Braden-Harder in view of Vora teaches a document search engine capable of producing an initial document list based on a search criteria, providing further semantic processing of that list, and performing two searches concurrently, as applied to Claim 8. Braden-Harder in view of Vora does not specifically suggest that a search criteria includes a time period in which a common event occurred, wherein the common event includes the filing of a patent application or publication of a technical document, however Rivette teaches these limitations with respect to Claims 4 and 5. Therefore since Braden-Harder, Vora, and Rivette are analogous art because they are from a similar field of endeavor in document search engines, it would have been obvious to one of ordinary skill in the art, at the time of invention, to

modify the teachings of Braden-Harder in view of Vora with the teachings of Rivette for those reasons given with respect to Claims 4 and 5.

With respect to **Claim 15**, Braden-Harder in view of Vora teaches a document search engine capable of producing an initial document list based on a search criteria, providing further semantic processing of that list, and performing two searches concurrently, as applied to Claim 8. Braden-Harder in view of Vora does not specifically suggest that the characteristic relates to a particular development, design, device, or process, however Rivette teaches this limitation with respect to Claim 7. Therefore since Braden-Harder, Vora, and Rivette are analogous art because they are from a similar field of endeavor in document search engines, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Braden-Harder in view of Vora with the teachings of Rivette for those reasons given with respect to Claim 7.

With respect to **Claim 18**, Rivette further teaches the means of displaying a search term hit number for patent documents as applied to Claim 10.

**Claim 19** contains subject matter similar to Claims 10 and 11, and thus, is rejected for the same reasons.

## *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Hutson *(U.S. Patent: 5,559,940)*- teaches a method for performing a semantic text analysis according to a SVO structure.
- Messerly *(U.S. Patent: 6,076,051)*- discloses a document searching method utilizing semantic relations between words (subject-verb-object).
- Nosohara *(U.S. Patent: 6,571,241)*- discloses a patent document search engine utilizing categories such as publication date and patent classification.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669 and email is James.Wozniak@uspto.gov. The examiner can normally be reached on Mondays-Fridays, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached at (703) 305-4827. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

James S. Wozniak
9/23/2004

SUSAN MCFADDEN
PRIMARY EXAMINER